ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:
Mansfield Pond Wetland Enhancement

2. Name of applicant:
Richard Scott Finger, District Wildlife Biologist, Washington Dept. of Fish and Wildlife

3. Address and phone number of applicant and contact person:
Attn: Rich Finger
Washington Department of Fish and Wildlife
1550 Alder St. NW
Ephrata, WA 98823
Richard.Finger@dfw.wa.gov
509-754-4624 x229 office
509-750-0618 cell

4. Date checklist prepared: 7/20/2010

5. Agency requesting checklist:
Washington Department of Fish and Wildlife

6. Proposed timing or schedule (including phasing, if applicable):
Environmental compliance, complete by December 31, 2010
Phase 1, January-June 2011
Phase 2, January-June 2012

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
Regular maintenance to include dewatering of Mansfield Pond to control tall emergent vegetation (within 25-50% coverage by area). This maintenance activity will be conducted when tall emergent vegetation coverage exceeds approximately 50%, which is expected to occur about every 3-5 years. Dewatering Mansfield Pond will allow us to mow tall emergent vegetation, which can then be re-flooded and killed.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.
Wetland delineation – prepared by wetland scientist Tom Duebendorfer

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
No.

10. List any government approvals or permits that will be needed for your proposal, if known.
U.S. Army Corps of Engineers – Nationwide Permit #27
Washington Department of Ecology – 401 Water Quality Certification
Washington Department of Ecology – Joint Aquatic Resources Permit Application (JARPA)

Washington Department of Ecology – State Environmental Policy Act (SEPA) Checklist

Washington Department of Ecology – Stormwater Permit

Washington Department of Ecology – Dam Safety Permit

Washington Department of Fish and Wildlife – Hydraulic Permit Approval (HPA)

United States Environmental Protection Agency – (NEPA; Categorical Exclusion)

Local Government Shoreline Permits, and Section 404 (ACOE)

Cultural Resources

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The project area is owned by Bureau of Reclamation and Washington Department of Fish and Wildlife (WDFW) and is managed by the WDFW. The area is managed for consumptive (hunting and fishing) and non-consumptive (wildlife viewing), fish and wildlife related, recreation and is open to the public year-round.

In 1986 a levee complete with a water-control structure and a small swale for dewatering were constructed to capture spring water, increase wetland acreage (to ~70 acres), and assist in the removal of common carp (Cyprinus carpio; occurred during 1987) from the system. The intent of this project was to enhance waterfowl habitat and hunting opportunity. Unfortunately, the water control structure proved to be incapable of draining the entire basin because a low spot occurs within the basin. Further, beaver eventually buried the water control structure, rendering it inoperable and potentially unusable.

Lessons learned from these efforts will allow us to build a more functional design of the original project. The primary objective of this project is to regain control of water levels in the 70-ac Mansfield Pond (150 ac-ft volume) to allow for the control of tall emergent vegetation and potentially fish that compromise the value of the pond for waterfowl and other wetland wildlife. 83% of the wetland is currently covered by tall emergent vegetation, limiting waterfowl use, hunter accessibility, and habitat for breeding amphibians. Once the infrastructure is constructed, management will include maintaining tall emergent vegetation coverage at 25-50% and a relatively fish-free system. When tall emergent vegetation exceeds 50% or carp or other invasive fish begin to negatively influence water quality, submerged aquatic vegetation, or invertebrate production, we will have the ability to dewater the pond, significantly reducing fish populations, and control tall emergent vegetation through mowing and re-flooding over the top of tall emergent vegetation, which will effectively kill the plant. Water level manipulations may be utilized to encourage seasonal vegetative growth (i.e., moist soil management).

Secondary to this objective is to utilize the water released from Mansfield Pond to improve habitat conditions in the lower basins (7.3 surface acres with 15.5 ac-ft of storage capacity). This will be done without compromising the integrity of Homestead Creek (a managed trout fishery) with a surface water connection, because plugs will be installed to ensure water will spill to Crab Creek. The project will spill overflow water to Crab Creek only in the event that the lower basins cannot accommodate the volume released from Mansfield Pond. Unfortunately, we do not know the rate at which water will penetrate the soils and bedrock in the lower basins, so it is uncertain whether or not overflow to Crab Creek will occur. We will attempt to avoid overflow by slowly releasing water from Mansfield Pond during the dewatering phases.

12. Location of the proposal. Grant County.
Approximately 2.75 miles west of junction of Stratford Rd and Rd 15 NE.
Legal Description: S½ S17 and S20 within T21 R28
Parcels: 171126000 (WDFW; 120 ac), 171127000 (WDFW; 40 ac), 171128000 (BOR; 280 ac), 171119000 (WDFW; 160 ac), 171120000 (WDFW; 160 ac)
Approximate site center: 47° 18' 24", 119° 19' 50"
Also, see attachment (1)

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous,
Rolling

b. What is the steepest slope on the site (approximate percent slope)?
35%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Malaga sandy loams and Starbuck, Prosser, Bakeoven, Rock outcrop, complexes. Some farmland of unique importance occurs uphill of the seeps that feed the project and within the lower, overflow basins.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

For the main Mansfield Pond unit, up to 3300 cubic yards of material will be used to re-grade the existing dike/levee. Up to 3100 cubic yards of material will be used to construct a levee (see map) for water storage unit #1 to prevent water from entering Homestead Creek. Approximately 350 cy will be used to create a small ditch plug (not shown) for the water storage unit #2 located south of the main Mansfield Pond to prevent water from entering Homestread Creek. All material shall be obtained to local onsite borrow areas primarily of sands and gravel (rock quarry on map). Excavation of interior swales within the main Mansfield Pond will occur if possible. Also, an existing ditch will be cleaned from the outlet of the water control structure located in the Mansfield Pond. This existing ditch is labeled a proposed swale on the attached maps. All excavated swale material shall be moved to upland sites or used to cap the re-grading of the dikes/plugs. See attached maps.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

There will be erosion associated with the construction of swales. Sediment traps will be installed where appropriate to reduce downstream deposits or eroded soil.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

None.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Proposed measures to minimize erosion will include the installation of a sediment trap at construction sites and limiting construction efforts to periods when springs are running at the minimum flow. Ideally, these measures would allow for the capture of all eroded materials within wetland basins and prevent them from entering the Crab Creek channel.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Some dust is anticipated along the access road from construction traffic. This event would occur only a few times and would be minimal.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Palustrine and Riverine, Lower perennial wetland systems occur within the project site. These wetlands feed Crab Creek via percolation through the soil. In the event that the lower basins cannot accommodate the volume of water released from Mansfield Pond, surface water will flow into Crab Creek. Sediment traps and fish barriers will be used to reduce erosion and the potential for fish (particularly carp) to enter the project system from Crab Creek.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes. Mansfield Pond will be drained and swales will be constructed within the wetland when inflow to the pond is at its lowest (spring, prior to irrigation season). Plans attached.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

For the excavated swales, approximately 2400 cy of material may be excavated. This material will be used on the levees/plugs or placed in upland sites, re-graded to match existing topography, and reseeded. For the three levees/plugs, of the 6800 cy of total fill approximately 2600 cy may be placed in wetland areas. Source of fill material will be either excavated swale material or onsite borrow areas primarily of sand, gravels, and cobbles.

4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

Yes, water will be diverted to the two lower basins located west and south of Mansfield Pond during construction of swales and water control structure installation. This water will also be diverted during maintenance activities such as tall emergent vegetation control and potentially moist-soil management activities. Mansfield Pond contains approximately 150 acre feet of water and the surface elevation is 1185 ft.

5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

Yes. See attached.

6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No

b. Ground:

1) **Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

No. Ground waters flow into the system naturally by a spring.

2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

None.

c. Water runoff (including stormwater):

1) **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

Runoff would continue to be collected by Mansfield Pond and lower basins to the west and south of Mansfield Pond. In the event that the lower basins cannot accommodate the water volume, overflow into Crab Creek will occur at a known location. Sediment traps and fish barriers will be used to manage this water.

2) **Could waste materials enter ground or surface waters? If so, generally describe.**

No.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Erosion will be minimized by working when springs are running at the minimum flow and all eroded materials will be captured within wetland basins and will not enter the Crab Creek channel.

4. Plants

a. Check or circle types of vegetation found on the site:

X_____ deciduous tree: alder, maple, aspen, other

_____ evergreen tree: fir, cedar, pine, other

X_____ shrubs

X_____ grass

_____ pasture

_____ crop or grain

X_____ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

X_____ water plants: water lily, eelgrass, milfoil, other

_____ other types of vegetation

a. What kind and amount of vegetation will be removed or altered?

	Vegetation	Acreage	Category
Ditch clean-out	Riparian	2 to 4 acres	Altered
Levee construction	Wetland/Upland	0.5 to 1 acre	Removed

See attachment (2) wetland report.

c. List threatened or endangered species known to be on or near the site.

None.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Non-wetland, disturbed areas will be re-seeded with a native vegetation mix appropriate for the site. Disturbed wetland plant communities are expected to recover without planting.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: northern harrier, great blue heron, bald eagle, songbirds, various species of dabbling and diving ducks as well as geese and swans, sora, snipe, American white pelican, pheasants, California quail.

mammals: coyote, mule deer, American beaver, muskrat, cottontail rabbit, mink, ermine

fish: Historically, the wetlands contained a large population of carp. A wetland rehabilitation project in 1983 removed all fish from the system.

b. List any threatened or endangered species known to be on or near the site.

The Northern Leopard Frog (State Endangered, Federal Candidate) was observed in the area during 1995 and 1997. Surveys have been conducted in the area since with no detections. The proposed project would enhance breeding habitat for Northern Leopard Frogs. The American white pelican (State Endangered) has been observed loafing on Mansfield Pond. The proposed management actions are not expected to influence pelican use significantly.

In addition, the following species occur, or have historically occurred, within 10 miles of the proposed project; Bald Eagle (Federal Concern, State Sensitive), Burrowing Owl (Federal Concern, State Candidate), Loggerhead Shrike (Federal Concern, State Candidate), Greater Sage Grouse (Federal Candidate, State Threatened), Washington Ground Squirrel (Federal Candidate, State Candidate), and Ferruginous Hawk (Federal Concern,

State Threatened). These species would not be affected by this project.

c. Is the site part of a migration route? If so, explain.

Yes, large numbers of migratory waterfowl pass through the area during Nov-Mar.

d. Proposed measures to preserve or enhance wildlife, if any:

The Mansfield Pond will be managed as a fish-free, hemi-marsh which will enhance wildlife diversity and productivity.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

There will be no energy needs for the project.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There are none anticipated

1) Describe special emergency services that might be required.

There are none anticipated

2) Proposed measures to reduce or control environmental health hazards, if any:

None.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Construction activities would generate some noise in the 100-110 decibel range.

3) Proposed measures to reduce or control noise impacts, if any:

None

8. Land and shoreline use

a. What is the current use of the site and adjacent properties?

The Mansfield Pond and associated lower basin wetlands support wintering and breeding waterfowl. The Mansfield Pond was rehabilitated during 1987 to remove carp and it appears to be fish-free today. The lower basin wetlands are mostly seasonal and probably do not contain fish. Fish-free (particularly carp-free) wetlands are extremely valuable to breeding waterfowl because they support a greater abundance of invertebrates. Thus, the value of these wetlands to breeding waterfowl is relatively high. Further, the absence of fish allows for greater productivity of submerged aquatic vegetation, which is important to migrating and wintering waterfowl, particularly diving ducks and swans. Mansfield Pond and associated lower basin wetlands are also open to the public for waterfowl hunting and other recreational opportunities.

Adjacent properties are shown below. The properties in the SE corner of the project (i.e. 171129000, 171133000, 171132001) are most likely to be impacted and should be contacted for their input. However, impacts are not expected to be significant. Currently, water flows from those listed properties towards Mansfield Pond, much of which probably flows subsurface. Drawdown of Mansfield Pond may increase the rate at which water flows through their properties and result in reduced water levels on those properties. However, this impact is expected to be minimal due to gentle topography and lack of a stream channel connecting the two systems. Mansfield Pond drawdowns would occur approximately every 10 years and would take place outside of the waterfowl hunting season (i.e. start drainage ~Feb 1 and fill by ~Sept 15.

171129000	DEFF LANDS LLC	1101 CEDAR ST, WENATCHEE WA 98801
171133000	DEFF LANDS LLC	1101 CEDAR ST, WENATCHEE WA 98801
171132001	FANCHER LAND INVESTMENTS LLC	PO BOX 850, MOSES LAKE, WA 98837
171132000	FANCHER LAND INVESTMENTS LLC	PO BOX 850, MOSES LAKE, WA 98837
190181000	WILSON BRUCE L/VICKI	9437 RD 15 NE, MOSES LAKE, WA 98837
190180000	ENGELHARDT LEE/CONNIE	8354 RD 16 NE, MOSES LAKE, WA 98837
171116000	SAMSON TR, NANCY J	4492 COLLEGE RD, SOUTH EUCLID, OH 44121
171117000	SPILLER, WAYNE C/BERNICE E	14600 W BOW HILL RD, BOW, WA 98232
171115000	HANSON, STANLEY C/ARLENE	18850 STRATFORD RD NE, MOSES LAKE, WA 98837
171118000	HANSON, STANLEY C/ARLENE	18850 STRATFORD RD NE, MOSES LAKE, WA 98837

b. Has the site been used for agriculture? If so, describe.

No

c. Describe any structures on the site.

None

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

RURAL, AGRICULTURAL. However, this site is not currently agriculture and no agriculture will be displaced.

f. What is the current comprehensive plan designation of the site?

Fish and Wildlife management area (Gloyd Seeps Unit of the Columbia Basin Wildlife Areas). Critical Area Ordinance, Grant Co., GMA

g. If applicable, what is the current shoreline master program designation of the site?

N/A

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No

i. Approximately how many people would reside or work in the completed project?

None

j. Approximately how many people would the completed project displace?

None

k. Proposed measures to avoid or reduce displacement impacts, if any:

None

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This area will be maintained as a public hunting and non-consumptive recreational use area.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

c. Proposed measures to reduce or control housing impacts, if any:

None

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No more than 3' above ground level.

b. What views in the immediate vicinity would be altered or obstructed?
None

c. Proposed measures to reduce or control aesthetic impacts, if any:
None

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No

c. What existing off-site sources of light or glare may affect your proposal?
No

d. Proposed measures to reduce or control light and glare impacts, if any:
None

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
The project site and the three most likely influenced adjacent properties (i.e. 171129000, 171133000, 171132001) are undeveloped and used primarily for wildlife habitat and outdoor recreation. It is important to note that this project will not result in changes to recreation. Hunting occurs on site now and will continue into the future.

b. Would the proposed project displace any existing recreational uses? If so, describe.
No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
The project will enhance recreational opportunities by increasing the diversity of wildlife species that use the site, by increasing the overall number of waterfowl that use the site, and by increasing accessibility through the reduction of tall emergent vegetation.

13. Historic and cultural preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None. A cultural resources review was conducted and it was determined by the Department of Archaeology and Historic Preservation that "no Historic Properties were affected" (log# 020810-05-BOR).

c. Proposed measures to reduce or control impacts, if any:

None

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

County Rd 16NE and WDFW managed roads provide access to the site.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No

c. How many parking spaces would the completed project have? How many would the project eliminate?

Approximately 20. None would be eliminated.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

No significant increases are expected

g. Proposed measures to reduce or control transportation impacts, if any:

None

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No

b. Proposed measures to reduce or control direct impacts on public services, if any.

None

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: .....

Date Submitted: 11/18/2010

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Operation of heavy machinery with internal combustion engines results in emissions of minor amounts of fumes during construction. Minor amounts of gasoline might be spilled during fueling engines resulting in fumes in the vicinity and discharge of fuel to ground or surface waters. Noise is generated by the operation of small engines.

Tailings containing rocks of varying size, settleable and suspended sediment, will be discharged to state waters and to upland areas.

Proposed measures to avoid or reduce such increases are:

Sediment traps will be used to reduce erosion associated with increased water discharge during construction.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The project is expected to result in a more diverse wetland plant community and thus will support a greater diversity of wildlife species, particularly waterfowl and amphibians.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

The project will be operated in a manner to increase seasonal wetland acreage, which is expected to enhance wildlife productivity.

3. How would the proposal be likely to deplete energy or natural resources?

No impact.

Proposed measures to protect or conserve energy and natural resources are:

Not applicable.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The project will enhance wetland function and increase consumptive and non-consumptive recreational value of the site. Farmland of unique importance occurs nearby but would not be impacted by the project.

Proposed measures to protect such resources or to avoid or reduce impacts are:

Not applicable.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

All uses would be compatible with existing plans (i.e., public recreation).

Proposed measures to avoid or reduce shoreline and land use impacts are:

Not applicable.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

No increased demands anticipated.

Proposed measures to reduce or respond to such demand(s) are:

Not applicable.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

No conflicts are anticipated. All necessary environmental compliance will be followed.

FEMA FLOODPLAIN MAPS